

IOWA DEPARTMENT OF NATURAL RESOURCES

ADMINISTRATIVE CONSENT ORDER

IN THE MATTER OF:

CITY OF MARSHALLTOWN
Wastewater Facility No. 6-46-69-0-01

**ADMINISTRATIVE
CONSENT ORDER**
NO. 2012 -WW-01

TO: City of Marshalltown
c/o Honorable Mayor and Council
City Hall
24 N. Center Street
Marshalltown, Iowa 50158

I. SUMMARY

This administrative consent order (order) is entered into between the City of Marshalltown (City) and the Iowa Department of Natural Resources (Department). The parties hereby agree to the issuance of this order. The City hereby agrees to comply with the requirements in this order for addressing sanitary sewer overflows (SSO's). In the interest of avoiding litigation, the parties have agreed to the following provisions.

Any questions or response regarding this order should be directed to:

Relating to Technical Requirements:

Janet Gastineau
Environmental Specialist
IDNR Field Office No. 5
401 SW 7th Street, Suite I
Des Moines, Iowa 50309-4611
Ph: 515/725-0268

Relating to Legal Matters

Diana L. Hansen
Attorney at Law
Iowa Department of Natural Resources
502 E. 9th Street
Des Moines, Iowa 50319-0034
Ph: 515/281-6267

II. JURISDICTION

The parties hereby agree that this order is issued pursuant to Iowa Code section 455B.175(1), which authorizes the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division III, Part I, and the rules promulgated or permits issued pursuant thereto, and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the Director to assess administrative penalties.

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III. STATEMENT OF FACTS

1. The City owns and operates a wastewater treatment facility (WWTF) located in Section 24, Township 84N, Range 18W in Marshall County, Iowa. The City operates its WWTF pursuant to NPDES Permit No. 6-64-69-0-01, issued by the Department on September 21, 2004, with an expiration date of September 20, 2009. The City has applied for permit renewal. Treated wastewater is discharged pursuant to this facility's permit from Outfall No. 001. The permit contains effluent limitations for the discharge of pollutants, including but not limited to carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), and pH. The permit also includes ammonia nitrogen, fecal coliform, chromium, copper, cyanide, lead and zinc effluent limits and monitoring requirements.

2. This facility consists of a conventional activated sludge plant with nitrification. The original plant was constructed in 1940. Preliminary treatment facilities were expanded in 1965 and 1987. Primary treatment facilities were expanded in 1965 and 1983. Secondary treatment capacity was expanded in 1973, 1983 and 1991. An additional sequencing batch reactor (SBR) plant was added for additional secondary treatment in 1989. The SBR plant consists of two SBR tanks, which are used for industrial wastewater treatment from the Swift plant. Additional sludge handling facilities were constructed and ultraviolet disinfection added in 1991.

Treatment units include two automatic bar screens, Parshall flume with ultrasonic flow measurement, three cyclone-type degritter units with a grit classifier, five straight line primary clarifiers, three pre-reaction basins with jet aeration, three conventional activated sludge basins, three circular final clarifiers, two sequencing batch reactor basins, lime silo for treatment of the Swift influent, ultraviolet disinfection, three heated anaerobic sludge digesters, two circular sludge storage tanks, stabilized sludge storage lagoon, two gravity sludge thickeners for primary sludge, and two dissolved air flotation units for waste activated sludge thickening. Effluent flows may be pumped to the river using up to six effluent pumps during periods of high river stage. There is a diffuser at the Iowa River outfall.

The City maintains a collection system with seven lift stations. The Turner Street lift station was recently rebuilt to include three pumps and three inverted siphons of varying sizes. There is an emergency power generator at this location. There is a 14 million gallon (MG) flow equalization basin at the treatment plant.

3. The City periodically exceeds the hydraulic capacity of its collection system. When this occurs, the system experiences SSO's and basement back-ups during wet weather events. The Turner Street lift station discharged approximately 62 MG of untreated wastewater to Linn Creek in June, 2008, 9.3 MG in May 2008, and 5.3 MG in April 2008. Two other lift stations bypassed in April 2008 for a total of 0.924 MG. The storm

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water equalization basin overflowed in May 2009 for a total of 12 MG entering the receiving stream after settling in the basin and ultraviolet disinfection. The Turner Street lift station bypassed 6.4 MG of untreated wastewater during this same period in May 2009. Significant bypassing was reported in April 2009 from the lift stations, basement backups and the storm water equalization basin at the treatment plant.

4. On December 29, 2009, the City submitted a progress summary for the wastewater flow monitoring and wet weather sanitary sewer control study being conducted by its consultant CH2M Hill. The project was intended to assess the capacity of the sanitary sewer system downstream of the Turner Street lift station and to identify the potential for inflow and infiltration (I/I) removal from the collection system tributary to the Turner Street lift station. The summary stated that during 2009 the City conducted additional flow monitoring and flow analysis, developed an updated existing conditions hydraulic model and identified scenarios for the system analysis phase of the project. The summary provided that improvements to the sewer system would be evaluated using the results from the hydraulic model finalized in 2009. The evaluation would include investigation of hydraulic relief and in-system storage. The system analysis would be conducted using the ten year design event, rather than at or below the five year recurrence interval.

5. On January 13, 2010, the City submitted a progress report to the Department concerning its SSO removal program. The report noted that the City completed the 2007 sanitary sewer rehabilitation- cured in place pipe (CIPP) lining project in April 2009. The City was working on a project to be completed in early 2010 to CIPP line 3,140 feet of sanitary sewer main that was discovered to be leaking from every joint after the 2008 flood. That project is completed. During 2008 and 2009 the City televised sewer lines in six different SSO areas of the City. All manholes in the SSO areas were inspected in the summer of 2009. The City conducted final design work on plans and specifications for additional CIPP lining for sewers, 8 new manholes, interior coating for 408 existing manholes at an estimated project cost of \$3,000,000. The progress reported noted that the Turner Street lift station project was completed in October 2008 at a cost of \$900,000.

The progress report stated that the City passed an 8 per cent sewer rate increase to begin paying for engineering services for the SSO projects. The progress report noted that the consultant CH2M Hill was conducting a flow monitoring study to be completed in March 2010. The report stated that additional televising of sewer lines would be conducted spring 2010 in areas identified in the CH2M Hill report. The City hired Fox Engineering in September 2009 to prepare a facility plan and evaluation of flow equalization and pumping needs at the treatment plant. The report was completed in October 2009. The same firm was hired by the City in January 2010 to prepare final design and manage construction of a new pumping station for the existing storm water equalization basin, a new flow equalization basin to be constructed next to the existing basin, modifications to the overflow structure and construction of a new overflow structure that will overflow to the City's wetlands, raising the existing FEB at least one foot, evaluation of the electrical system options and provision of power and control systems at the pump station.

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6. On December 30, 2009 Field Office No. 5 (FO 5) conducted a routine inspection of the City's WWTF. On January 19, 2010, FO5 sent an inspection report to the City. The inspection report noted that bypassing at the lift stations and the flow equalization basin were reported during the review period. The report stated that the CBOD5 design loading was exceeded during two months and the maximum design flow was exceeded during one month of the review period. The report required compliance with design capacities and NPDES permit effluent limitations. The report also required the City to continue to work toward identification and elimination of I/I as directed by the February 15, 2008 letter from FO 5.

7. The City met with FO 5 staff on September 10, 2010 and reported on the City's progress concerning SSO removal work. The City's consultant was in the process of completing its report concerning the SSO study. It was anticipated that the final report would be done by September 30, 2010. Televising of sewer lines was to be completed from winter 2010 through early 2011. The City indicated to FO 5 at the meeting that the projected completion date for the WWTF upgrade and SSO removal work would be April 29, 2012.

8. The City provided a summary of the status of the City's project as follows:

A. CH2M HILL Report- The City received the CH2M HILL report in September, 2010 and has used the information to prepare the 2011 TV and Smoke Testing Project and the 2011 Sanitary Sewer Rehabilitation- Pipe Enlargement project listed below.

B. The WWTF Peak Flow Holding and Pumping Improvement Project- As of mid-September 2011, Story Construction Company and its subcontractors were in the middle of construction, with the grading of the new 20 MG flow equalization basin completed and the lining of the basin to start shortly. The construction of a new 2.7 MG sludge storage tank was completed with equipment to be added inside the tank. A new electrical building to provide additional power for the new influent pumps and sludge tank mixers has been bricked, but has not been completed due to waiting for delivery of the electrical equipment. An additional generator will also be provided to power the new electrical building and plant as needed. The new influent pump station that will pump high wastewater flows to the flow equalization basin is under construction. The structure was scheduled to be completed by the end of October, 2011. The largest hold up on the project is delivery of the electrical equipment to power the new pumps and new sludge tank equipment. Although the contractor thinks he is ahead of schedule, with the uncertainty of delivery dates for electrical equipment, it is not known if the project will be completed early. The original proposed completion date of August 31, 2012 is still planned for this entire project.

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C. The 2009 Sanitary Sewer Rehabilitation Project- The 2009 Sanitary Sewer Rehabilitation Project is about 50 percent complete, with 90 percent of the manholes lined. The City has proposed a change order for an additional 13,000 feet of CIPP Pipe Lining. The project is still planned to be completed on schedule by the August 31, 2012.

D. The 2011 TV and Smoke Testing Project- The 2011 TV and Smoke Testing Project has been completed with a report to be provided by December 15, 2011.

E. 2011 Sanitary Sewer Rehabilitation- Pipe Enlargement Project- The 2011 Sanitary Sewer Rehabilitation- Pipe Enlargement Project is in the preliminary design phase with FOX Engineering working on the evaluation and preliminary design to be completed by mid November, 2011. Final design will start in early 2012, with bids scheduled for late April 2013. The length of design time has been lengthened due to the time needed to acquire easements and rights to place a flow equalization tank out in the collection system.

F. A City consultant met with FO 5 staff in Des Moines on August 12, 2011 and November 21, 2011 and reported on the City's progress concerning SSO Removal work.

IV. CONCLUSIONS OF LAW

1. Iowa Code section 455B.175(1) provides in part: If there is substantial evidence that any person has violated or is violating any provision of this division or chapter 459, subchapter III, or of any rule established or permit issued pursuant thereto; then:

(1) The director may issue an order directing the person to desist in the practice which constitutes the violation or to take such corrective action as may be necessary to ensure that the violation will cease.

2. Iowa Code section 455B.186(1) prohibits the discharge of pollutants into waters of the state, except for adequately treated pollutants discharged pursuant to a permit. This section provides as follows:

1. A pollutant shall not be disposed of by dumping, depositing, or discharging such pollutant into any water of the state, except that this section shall not be construed to prohibit the discharge of adequately treated sewage, industrial waste, or other waste pursuant to a permit issued by the director. A pollutant whether treated or untreated shall not be discharged into any state owned natural or artificial lake.

3. Iowa Code section 455B.183 prohibits the operation of a wastewater disposal system without or contrary to a permit from the Department.

4. Iowa Code section 455B.173 authorizes and requires the Environmental Protection Commission (Commission) to promulgate rules relating to the operation of waste disposal

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systems, including rules relating to monitoring and reporting requirements. The Commission has done so at 567 IAC chapters 60- 64. Subrule 64.3(1) prohibits the operation of a waste disposal system without or contrary to the terms of a permit. Subrule 64.7 specifies the conditions that are to be included in a permit, including applicable effluent limitations and proper operation and maintenance.

5. The City's NPDES permit requires proper operation and maintenance of the WWTF in section 8 of the standard conditions. "All facilities and control systems shall be operated as efficiently as possible and maintained in good working order." The large number of SSO discharge points in the City's collection system and discharges from the SSO discharge points are indicative of operational and maintenance deficiencies in the City's collection system that need to be corrected.

6. Subrule 567 IAC 60.2 defines bypass as "[T]he diversion of waste streams from any portion of a treatment facility or collection system. A bypass does not include internal operational waste stream diversions that are part of the design of the treatment facility, maintenance diversions where redundancy is provided, diversions of wastewater from one point in a collection system to another point in a collection system, or wastewater backups into buildings that are caused in the building lateral or private sewer line."

7. Subrule 567 IAC 63.6(1) provides in part: "Prohibition. Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited." The facts stated in Section III of this order indicate that the City can not comply with this provision unless further improvements to the City's collection system are made. The City Council has committed to making such improvements. The City is in the process of completing improvements to the City's sanitary sewer collection system.

V. ORDER

THEREFORE, the Department hereby orders and the City consents to do the following:

1. The City agrees to complete the WWTF Peak Flow Holding and Pumping Improvements Project and have the project, including the flow equalization basin, fully completed and operational by August 31, 2012.
2. The City agrees to complete the 2009 Sanitary Sewer Rehabilitation Project for the reduction and elimination of bypasses by August 31, 2012.
3. A. The CH2M Hill report included modeling of the collection system and identified areas of the sewer system with limited capacity during rainfall events. The City agrees to evaluate those limitations and determine the lines that need to be enlarged or drainage areas that need additional I/I removal or both. The City agrees to hire a consultant and

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have a facility plan/ preliminary engineering report (FP/ PER) prepared and submitted to the Department by December 31, 2011.

B. The TV inspection work identified in Section III. Paragraph 8.D. above and evaluation of pipe limitation issues in Paragraph 3.A. above are to be completed and a report submitted to the Department concerning such measures by December 15, 2011. The City will review video tapes and smoke testing reports and submit a report to the Department concerning this review by June 15, 2012.

C. Following review of TV inspection work for the northeast section of the City, the City has submitted a Community Development Block Grant (CDBG) application for approximately \$2,000,000 in cured in place pipe (CIPP) lining of sewers and cementitious lining of manholes in this area. There will be two phases of the 2012 Northeast Sanitary Sewer Rehabilitation Project, each with a separate contract.

(1) Phase 1- Replace approximately 35 Cleanouts and Tees with new manholes. The new manholes are needed in order to do CIPP lining of the sewers.

a. Complete the project design and any required revisions to the FP/ PER from January 1, 2012 through April 30, 2012.

b. Submit final complete plans and specifications, the construction permit application, fee form and the fee to the Department's Project Manager by May 31, 2012.

c. Bid the project and issue the notice to proceed to begin construction by January 15, 2013.

d. Complete new manholes by September 15, 2013.

(2) Phase two- CIPP Lining of approximately 60,000 feet of pipe and lining of approximately 210 manholes.

a. Begin design by June 1, 2012 and submit the preliminary construction permit application (60 percent plans and specifications and construction schedules) to the Department's Project Manager by July 15, 2012.

b. Submit the final complete construction permit application, including the complete plans and specifications, application schedules including Schedule A, the fee form and the fee to the Department's Project Manager by September 15, 2012.

c. Take bids by January 15, 2013 and begin construction by May 1, 2013.

d. Complete construction by June 30, 2014.

D. The City agrees to develop a project to enlarge pipe capacities and/ or to construct additional flow equalization in the collection system.

(1) The pipe enlargement project will include a parallel pipe along the West Interceptor from the Veterans Home to the WWTF and a few small site projects.

a. Submit the FP/ PER including this project to the Department's Project Manager by December 31, 2011. It is anticipated that this will be included as part of the FP/ PER referenced in Paragraph 3.A. above in this order.

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b. Submit the preliminary construction permit application (60 percent plans and specifications and application schedules) to the Department's Project Manager by August 31, 2012.

c. Submit the complete construction permit application, including the complete plans and specifications, application schedules including Schedule A, the fee form and the fee to the Department's Project Manager by December 31, 2012.

d. Bid the project and issue a notice to proceed by April 29, 2013. The final completion date of the project will be determined following completion of the scope of work, the FP/ PER and final construction permit application submittals to the Department's Project Manager. The project is to be completed in accordance with the schedule approved by the Department's Project Manager.

(2) The Flow Equalization Tank project at Turner Street Lift Station will include a 5 MG tank constructed and piped from the Turner Street Lift Station.

a. Submit the FP/ PER including this project to the Project Manager by December 31, 2011. It is anticipated that this will be included as part of the FP/ PER referenced in Paragraph 3 A. above in this order.

b. Prepare easements, purchase land and resolve the 1000 foot site separation distance issue by July 15, 2012.

c. Submit the preliminary construction permit application (60 percent plans and specifications and application schedules) to the Department's Project Manager by November 30, 2012.

d. Submit the complete construction permit application, including the complete plans and specifications, application schedules including Schedule A, the fee form and the fee to the Department's Project Manager by February 15, 2013.

e. Bid the project and issue a notice to proceed by June 30, 2013. The final completion date of the project will be determined following completion of the scope of work, the FP/ PER and final construction permit application submittals to the Department's Project Manager. The project is to be completed in accordance with the schedule approved by the Department's Project Manager.

f. Both parties recognize that the dates in Paragraph 3.D.(2) above may need revision and a consent amendment to this order entered into if the City cannot meet the site separation distance for the Flow Equalization Tank through obtaining waivers or a variance and a different capacity solution needs to be determined.

E. Design of the 2014 Sewer Rehabilitation Project will begin after TV reviews are completed in June 2012. The project will be divided into two projects of less than \$2 million each and include manhole and sewer pipe lining. The 2014 project will be put out for bids by December 1, 2013. Construction will begin by June 1, 2014. The final completion date of the project will be determined following completion of the scope of work, the FP/ PER and final construction permit application submittals to the Department's Project Manager. This project is to be completed in accordance with the schedule approved by the Department's Project Manager.

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F. Design of the second rehabilitation project, the 2015 Sewer Rehabilitation Project, will begin fall 2013 and be put out for bids by December 1, 2014. Construction will begin by June 1, 2015. The final completion date of the project will be determined following completion of the scope of work, the FP/PER and final construction permit application submittals to the Department's Project Manager. This project is to be completed in accordance with the schedule approved by the Department's Project Manager.

4. A. If the performance of any part of this order by the City is prevented, hindered or delayed by reason of any cause or causes beyond the control of City, and which cannot be overcome by due diligence, the City shall be excused from such performance to the extent that it is necessarily prevented, hindered or delayed thereby, during the continuance of any such happening or event, and this order shall be deemed suspended so long as and to the extent that any such cause prevents or delays its performance.

B. The City shall give notice to the Department within five (5) days after the discovery by the City of any condition referred to in the above paragraph. The Department shall make a determination as to the applicability of any such claim within five (5) days after receiving notice.

5. The City agrees to the payment of a stipulated penalty in the amount of \$100.00 per day that the deadlines established for the City in Section V, Paragraphs 1, 2, 3 C.(2)d, 3 D.(1)d and 3 D.(2)e of this order are not met by the City. Payment is due within sixty days of the City's receipt of a letter from the Department stating the amount and the deadline not met by the City.

VI. PENALTY

1. Iowa Code section 455B.191 authorizes the assessment of civil penalties of up to \$5,000.00 per day of violation for the violations involved in this matter.

2. Iowa Code section 455B.109 authorizes the Commission to establish by rule a schedule of civil penalties up to \$10,000.00, which may be assessed administratively. The Commission has adopted this schedule with procedures and criteria for assessment of penalties in 567 IAC chapter 10. Pursuant to these rules, the Department has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an order with stipulated penalties for violation of the compliance schedule in this order.

3. The penalties stipulated by the parties in this order are for future violations, if they occur. The stipulated penalties are designed to reflect the potential economic benefit to the City for failure to make the expenditures needed to stay on schedule. Such penalties are related to the probable severity of the violations in that not meeting the compliance

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schedule in this order is a fairly serious matter. The penalties would also be related to future culpability in that the City has been put on notice by this order that stipulated penalties will result if the compliance schedule is not met.

a. Economic Benefit. The plan set forth in this order, and the activities to date, have been undertaken with consideration of the cost impacts on the City. Delaying the upgrade or replacement of the existing sanitary sewer system collection system allows for the distribution of costs over time to reduce the fiscal impact of the improvements. The execution of this order constitutes a good faith attempt by both parties to achieve compliance and resolve past violations. Due to this the Department is assessing economic benefit penalties only in the event of noncompliance by the City with the compliance schedule included in this order. The stipulated penalties set forth in Section V of this order give consideration to the economic benefit received by the City.

b. Gravity of the violation. One of the factors to be considered in determining the gravity of a violation is the amount of penalty authorized by the Iowa Code for the type of violation. As indicated above, substantial civil penalties are authorized by statute. Despite the high penalties authorized, the Department has decided to handle the violations administratively at this time as the most equitable and efficient means of resolving the matter. Maintaining compliance with water pollution control laws is a major program priority of the federal and state pollution control agencies. The City's sewer collection system has not been able to maintain compliance with applicable requirements and has bypassed untreated wastewater to the receiving stream during significant wet weather events. In light of these factors and the current cooperative efforts of the City, the Department has determined that a penalty is appropriate only in the event of noncompliance with construction schedule included in this order. The stipulated penalties set forth in Section V of this order give consideration to the gravity of the violation.

c. Culpability. The City has been aware of the inadequacies of the existing sanitary sewer collection system for a considerable period of time but has not yet completed the improvements required to correct the problem. This culpability is mitigated by the steps the City has been taking over the past several years to address the problem. The Department has determined that the assessment of a penalty is appropriate only in the event of noncompliance with the compliance schedule contained in this order. The stipulated penalties included in Section V of this order give consideration to the culpability of the City.

VII. WAIVER OF APPEAL RIGHTS

Iowa Code section 455B.175, and 561 IAC 7.4(1), as adopted by reference by 567 IAC chapter 7, authorize a written notice of appeal to the Commission. This order is entered

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into knowingly by and with the consent of the City By signature to this order, all rights to appeal this order are waived

VIII. NONCOMPLIANCE

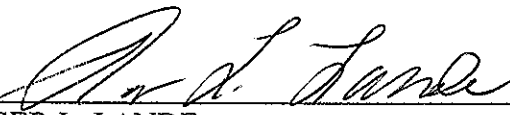
Failure to comply with this order may result in the imposition of administrative penalties or referral to the Attorney General to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.191. Compliance with Section V., Paragraphs 1- 4 of this order constitutes full satisfaction of all requirements pertaining to the specific violations described in this order. The Department reserves the right to issue a new administrative order with an administrative penalty or to seek referral to the Attorney General in lieu of collecting the agreed upon stipulated penalties established by this order.



GENE L. BEACH, MAYOR
MAYOR OF MARSHALLTOWN

Dated this 21st day of

December, 2011



ROGER L. LANDE
DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES

Dated this 10th day of

January, 2012

City of Marshalltown- NPDES Permit No 6-64-69-0-01, Field Office No. 5- Ted Peterson and Janet Gastineau, Legal Services- Diana L. Hansen, U.S.E.P.A. Region VII, I.B.2.d., I.C.1.